

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellants: BUCKWALTER et al.

Application Serial No.: 10/697,541

Filing Date: October 30, 2003

For: **METHOD AND APPARATUS FOR  
MONITORING AND EVALUATING  
LIMIT ORDER TRADING**

) Confirmation No.: 7586  
) Group Art Unit: 3692  
) Examiner: Shahid R. Merchant  
) **APPEAL BRIEF**  
) Attorney Docket No.: G08.047/U  
) **PTO Customer Number 28062**  
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Alexandria, VA 22313-1450

Sir:

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner in the Final Office Action mailed May 22, 2008 (the "Final Office Action"), rejecting claims 1, 7-9, 13-14, 20-27, 35 and 39.

## **REAL PARTY IN INTEREST**

The present application is assigned to GOLDMAN SACHS & CO., One New York Plaza, New York, New York 10004, U.S.A.

## **RELATED APPEALS AND INTERFERENCES**

No other appeals or interferences are known to Appellants, Appellants' legal representative, or assignee, which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

## **STATUS OF CLAIMS**

Claims 1-40 are pending in this application. Claims 2-6, 10-12, 15-19, 28-34, 36-38 and 40 stand withdrawn from consideration as being directed to inventions that were not elected for prosecution herein. Claims 1, 7-9, 13-14, 20-27, 35 and 39 stand rejected and are the subject of this appeal.<sup>1</sup>

## **STATUS OF AMENDMENTS**

No amendments were filed after the Final Office Action.

## **SUMMARY OF CLAIMED SUBJECT MATTER**

An option is a contract giving the holder the right, but not the obligation, to buy or sell shares of an underlying security at a specific price for a specific time. (Specification, page 2, lines 4-6) There are a number of different exchanges in the United States on which trading in options takes place, and some options contracts are listed for trading on several exchanges. (Specification, page 2, lines 6-10; page 2, line 30 to page 3, line 2) The various options

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<sup>1</sup> As appellants have previously noted (e.g., at page 5, last paragraph, of the Response filed herein on March 28, 2008) claim 1 is generic to withdrawn claims 2-6 and 10-12, which are dependent on claim 1 and which should be allowed together with claim 1.

exchanges are not linked, and at any given time, there may be slight differences in order pricing or execution for a given options contract at different exchanges. (Specification, page 3, lines 2-4) Consequently, situations referred to as “trade-throughs” or “trade-ats” may occur. In these situations, a limit order for an options contract remains unfilled at one exchange even though a contemporaneous transaction for that options contract occurred at a better or equal price at another exchange. (Specification, page 3, lines 4-7) These situations may raise questions about how well a broker has served its customers. (Specification, page 3, lines 10-12)

To aid brokerage customers in assessing their brokers’ performance, the present invention provides a method for generating data concerning the quality of order execution. (Specification, page 3, lines 18-20) In this method, an option order limit is received, and a substantially real-time feed of option market data is also received and is used in real time to identify trade-through or trade-at transactions relevant to the option limit order. (Specification, page 3, lines 20-26) The identification of the trade-through or trade-at transaction occurs prior to the option limit order being fully executed, deleted or canceled. (Specification, page 15, lines 1-12)

\* \* \* \* \*

Appellants will now map the limitations of the pending independent claims to the disclosure of this application. The limitations of dependent claims that are argued separately are also now mapped to the disclosure of this application.

\* \* \* \* \*

### Claim 1

“identifying an option limit order, said option limit order including information identifying a customer, information identifying a desired option, and information that indicates a limit price for said option limit order”—specification, page 13, lines 17-26.

“receiving a substantially real time feed of option market data”—specification, page 14, lines 10-11.

“using the option market data in real time to identify at least one of a trade-through transaction relevant to said option limit order and a trade-at transaction relevant to said option limit order, said identifying said at least one of a trade-through transaction and a trade-at transaction occurring at a time prior to said option limit order being fully executed, deleted or canceled”—specification, page 15, lines 2-12.

Claim 7 (Dependent on claim 1)

“using the identified at least one of a trade-through transaction and a trade-at transaction to tabulate at least one of trade-through data and trade-at data for a plurality of option limit orders placed by the customer”—specification, page 8, lines 23-24; page 16, lines 18-23.

“tabulating fulfillment data for the plurality of option limit orders placed by the customer”—specification, page 8, lines 24-29; page 16, lines 25-29.

“comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data”—specification, page 8, lines 24-29; page 17, lines 1-5.

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Claim 14 (Dependent on claim 1)

“disregarding the identified at least one of a trade-through transaction and a trade-at transaction in response to a market condition in effect at a time of the identified at least one of a trade-through transaction and a trade-at transaction”—specification, page 28, lines 6-10.

\* \* \* \* \*

Claim 20

“receiving a plurality of option limit orders, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order”—specification, page 13, lines 17-26; page 16, lines 18-23.

“tabulating at least one of trade-through data and trade-at data for the plurality of option limit orders”—specification, page 16, lines 18-23.

“tabulating fulfillment data for the plurality of option limit orders”—specification, page 8, lines 24-29; page 16, lines 25-29.

“comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data”—specification, page 8, lines 24-29; page 17, lines 1-5.

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Claim 35

“apparatus for generating quality data associated with a plurality of option limit orders”—item 500, FIGS. 1 and 4; specification, page 9, lines 11-13; page 11, line 26-page 12, line 8.

“a processor”—item 510, FIG. 4; specification, page 18, lines 7-10.

“a storage device in communication with said processor and storing instructions adapted to be executed by said processor”—item 530, FIG. 4; specification, page 18, lines 25-27.

“receive a plurality of option limit orders, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order”—specification, page 13, lines 17-26; page 16, lines 18-23.

“tabulate at least one of trade-through data and trade-at data for the plurality of option limit orders”—specification, page 16, lines 18-23.

“tabulate fulfillment data for the plurality of option limit orders”—specification, page 8, lines 24-29; page 16, lines 25-29.

“compare the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data”—specification, page 8, lines 24-29; page 17, lines 1-5.

\* \* \* \* \*

### Claim 39

“limit order protection system”— item 500, FIGS. 1 and 4; specification, page 9, lines 11-13; page 11, line 26-page 12, line 8.

“a communication device for receiving a plurality of option limit orders, each of said option limit orders including information identifying a respective option, and information that indicates a respective limit price for said option limit order”—item 520, FIG. 4; specification, page 18, lines 11-13; page 13, lines 17-26; page 16, lines 18-23.

“means for tabulating at least one of trade-through data and trade-at data for the plurality of option limit orders”—items 510 and 530; FIG. 4; specification, page 18, lines 7-10; page 18, lines 25-27; page 16, lines 18-23.

“means for tabulating fulfillment data for the plurality of option limit orders”— items 510 and 530; FIG. 4; specification, page 18, lines 7-10; page 18, lines 25-27; page 8, lines 24-29; page 16, lines 25-29.

“means for comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data”— items 510 and 530; FIG. 4; specification, page 18, lines 7-10; page 18, lines 25-27; page 8, lines 24-29; page 17, lines 1-5.

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## GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 7, 9, 13, 14, 20, 22-27, 35 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nordlicht (U.S. patent publication 2002/0194115) in view of two SEC Final Rules—a rule relating to “Disclosure of Order Execution and Routing Practices” (hereinafter Reference U), and a rule relating to “Firm Quote and Trade-Through Disclosure Rules for Options” (hereinafter Reference V)<sup>2</sup>.

## ARGUMENT

### I. Applicable Law

All of the issues in this appeal are related to rejections under 35 U.S.C. § 103(a). In these rejections, the Examiner found the claims at issue to be obvious in view of a proposed combination of references.

The recent Supreme Court decision in *KSR Int'l Co. v. Teleflex Inc.*<sup>3</sup> is now the leading case on the concept of obviousness. Quoting the statute, the Court observed that a patent may not be issued when

the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.<sup>4</sup>

The Court went on to note that “the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results”.<sup>5</sup>

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<sup>2</sup> Claim 8 (dependent on claim 7) and claim 21 (dependent on claim 20) are subject to a separate but similar obviousness rejection which is not believed to raise any additional issues that need to be addressed herein.

<sup>3</sup> 127 S.Ct. 1729, 82 USPQ2d 1385 (2007)

<sup>4</sup> Slip opinion, at pp. 1-2.

<sup>5</sup> Slip opinion, at p. 12.

Addressing situations in which

the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement ... [,]

the Court prescribed:

Often, it will be necessary for a court [or patent examiner] to look to interrelated teachings of multiple patents; the effects of demands known to the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was some apparent reason to combine the known elements in the fashion claimed ... .

... [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.<sup>6</sup>

A *prima facie* finding of obviousness cannot properly be made unless all the limitations of the claimed invention are taught or suggested by the prior art. *In re Royka*, 490 F. 2d 981 (CCPA 1974).

## **II. Overview of the references and differences relative to the claimed invention**

Appellants will initially now compare the references applied by the Examiner with the claimed invention in broad conceptual terms, to provide a general background for the more detailed discussion which is to follow.

Nordlicht is directed to an electronic options trading system.<sup>7</sup> Nordlicht's system includes a single market server 101 that receives and matches orders, and serves as a central

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<sup>6</sup> Slip opinion, at pp. 14-15.

<sup>7</sup> See Nordlicht's Abstract and paragraph 0007.

marketplace for the entire system.<sup>8</sup> Since Nordlicht's system does not include plural, unlinked exchanges, trade-at and trade-through transactions cannot occur. Hence, in appellants' view, Nordlicht is not particularly pertinent to the present invention—not more pertinent than a generic electronic trading system.

The SEC rule set forth in Reference U requires market centers to provide monthly reports of order execution quality and broker-dealers to disclose order routing practices.<sup>9</sup> Reference U also is not believed to be particularly pertinent to the present invention because Reference U is not concerned with trade-at or trade-through transactions.

Unlike the other two references relied upon by the Examiner, Reference V is quite pertinent to the present invention. In addition to requiring options exchanges and options market makers to publish firm quotes, the SEC rule set forth in Reference V also requires broker-dealers to disclose to customers when trade-throughs have occurred.<sup>10</sup> However, Reference V does not require the disclosure to occur until "completion" of the customer's transaction, that is, upon settlement.<sup>11</sup> Disclosure upon settlement would be long after the identification of a trade-through transaction "prior to said option limit order being fully executed, deleted or canceled", as recited in claim 1 of this application.

### **III. Claims 1, 7-9, 13 and 14 are patentable over the references relied upon by the Examiner**

Claim 1 is taken as representative of claims 1, 7-9, 13 and 14, which are intended to stand or fall together, except that additional arguments are also provided below supporting patentability of claims 7, 8 and 14 on grounds independent of the patentability of claim 1.

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<sup>8</sup> Nordlicht, FIG. 1 and paragraphs 0034-0049.

<sup>9</sup> Reference U, page 1, "Summary".

<sup>10</sup> Reference V, page 1, "Summary".

<sup>11</sup> Reference V, page 9, last three sentences; page 31, second full paragraph; page 56, footnote 52; cf. 17 CFR 240.15c1-1(b)(1): "The term *completion of the transaction* means: ... In the case of a customer who purchases a security through or from a broker ..., the time when such customer pays the broker ... any part of the purchase price....".

The Examiner's discussion of claim 1 contains a significant error as to what References U and V disclose. The Examiner asserts<sup>12</sup> that

[References U and V teach] using the option market data in real time to identify a trade-through transaction relevant to said option limit order, said identifying occurring at a time prior to said option limit order fully executed, deleted or canceled . . . .

In actuality, however, Reference U contains no disclosure about identification of trade-throughs, and Reference V only teaches that trade-throughs are to be disclosed to the customer by the time that settlement takes place—i.e., well after execution.<sup>13</sup>

Notwithstanding the above-quoted erroneous assertion in the rejection itself, the Examiner apparently recognized this deficiency in Reference V by the following statement at page 3, lines 9-13 of the Final Office Action:

Although [Reference V] does not require a transaction to be identified before completion, one of ordinary skill in the art could have easily modified the teachings of [Reference V] with predictable results. It would be an obvious design choice with predictable results. Instead of identifying a trade-through transaction after execution, it would be identified prior to execution.

Appellants contend that the Examiner has failed to adduce an “apparent reason” for the proposed modification of the prior art, as called for by the *KSR* case. Although the Examiner refers to “predictable results” and “design choice”, he fails to identify what the “predictable results” were and fails to establish that the alleged “design choice” was one that was actually known to the prior art. By contrast, the present application discloses a beneficial result of the claimed invention that was not known in the prior art, namely enabling a real-time alert that the trade-through has occurred.<sup>14</sup> No such reason is disclosed in the teachings of the prior art to support the Examiner’s proposed modification of Reference V.

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<sup>12</sup> Final Office Action, page 5, lines 11-13.

<sup>13</sup> Reference V, page 9, last three sentences; page 31, second full paragraph.

<sup>14</sup> Page 15, lines 14-21 of the specification of the present application.

For these reasons, appellants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 1, and that the rejection of claim 1 should accordingly be reversed by this Honorable Board.

***IV. Separate argument in support of claims 7 and 8***

Claim 7 is taken as representative of itself and claim 8.

As noted above, claim 7 adds to claim 1 the further limitation of comparing tabulated fulfillment data with tabulated trade-through/trade-at data. As to this limitation as well, appellants contend that the Examiner has failed to establish a *prima facie* case of obviousness.

At page 6, paragraph 9 of the Final Office Action, the Examiner relies on the Nordlicht reference as allegedly disclosing this limitation. However, the fatal flaw in the Examiner's position is that Nordlicht does not in any way disclose or discuss trade-at/trade-through data, and hence cannot possibly teach or suggest comparing such data with another kind of data.

This point is believed to present an additional reason why the rejection of claim 7 should be reversed.

***V. Separate argument in support of claim 14***

Claim 14 adds to claim 1 the further limitation of disregarding a trade-through/trade-at transaction in response to a market condition. The Examiner's treatment of this limitation also is flawed.

With respect to claim 14, the Examiner relies<sup>15</sup> on disclosure in paragraph 0086 in Nordlicht with respect to killing a potential order to be submitted by a trader. A first shortcoming in the Examiner's position is that an order to be submitted by a trader is completely different from a trade-at/trade-through transaction. Further, killing a potential order is not analogous to disregarding a trade-at/trade-through transaction, since the latter has actually

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<sup>15</sup> Final Office Action, page 3, paragraph 4.

already occurred. Still further, there is no suggestion in paragraph 0086 of Nordlicht that the killing of the order is “in response to a market condition”.

For all of these reasons, it is submitted that there are grounds for reversing the rejection of claim 14 in addition to the arguments set forth above with respect to claim 1.

**VI.     Claims 20-27, 35 and 39 are patentable over the references relied upon by the Examiner**

Claim 20 is taken as representative of claims 20-27, 35 and 39.

Like claim 7 as discussed above, claim 20 includes the limitation of comparing tabulated order fulfillment data with tabulated trade-at/trade-through data.

The Examiner’s rejection of claim 20 appears at page 7, paragraph 14 of the Final Office Action.

It appears to appellants that the Examiner’s reasoning with respect to claim 20 runs something like this: (1) Nordlicht teaches all of claim 20 except that it does not involve trade-through data; (2) the SEC references teach trade-through data; and (3) if you plug in the SEC reference teachings about trade-through data into Nordlicht’s system, you end up with claim 20.

One important mistake on the Examiner’s part lies in his proposed reason for modifying Nordlicht’s system based on References U and V: “[B]ecause it would allow one to identify when a customer is not getting the best price as taught by [Reference V].”<sup>16</sup> This reasoning fails to take into account that Nordlicht’s marketplace is unified, and thus there is no possibility in Nordlicht’s system that the customer might not get the best price. It follows that trade-throughs could not occur in Nordlicht’s system, and that disclosure of trade-throughs, as mandated by Reference V, would have no applicability in Nordlicht’s system.

Aside from the lack of an apparent reason to combine the references, there are at least two other significant problems with this rejection. First, the Examiner’s assertion that Nordlicht teaches “comparing the tabulated fulfillment data to the [unspecified type of] tabulated data”<sup>17</sup>

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<sup>16</sup> Final Office Action, page 7, paragraph 14, lines 13-16.

<sup>17</sup> Final Office Action, page 7, paragraph 14, lines 9-10.

is not even a meaningful statement, in the absence of some indication of what the latter type of tabulated data is. Second, and even more fundamental, Nordlicht does not even appear to disclose comparing one type of tabulated data to another. The portions of Nordlicht cited by the Examiner<sup>18</sup> as allegedly so disclosing—paragraphs 82, 83, 139 and FIG. 7A--do not really discuss comparing anything to anything. Rather, those portions seem to be concerned with reports or displays of trading information.

In view of the above points, appellants respectfully submit that the Examiner has again failed to produce a *prima facie* case of obviousness and that the rejection of claim 20 should be reversed.

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<sup>18</sup> Id.

## CONCLUSION

The Examiner's claim rejections are believed to be improper for the reasons set forth hereinabove. The Examiner's decision should therefore be reversed.

As required by 37 CFR §41.37(a)(1), this Brief is filed within two months from the date of filing of Appellants' Notice of Appeal (*i.e.*, within two months of August 22, 2008); as such, no extension of time is believed due. Also, the requisite fee for filing an Appeal Brief is submitted herewith. However, if any additional fees are due in conjunction with this matter, the Commissioner is hereby authorized to charge them to Deposit Account 50-1852. An Appendix of claims involved in this appeal is attached hereto.

If any issues remain, or if the Examiner or the Board has any further suggestions for expediting allowance of the present application, kindly contact the undersigned using the information provided below.

Respectfully submitted,

October 20, 2008

Date

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## **APPENDIX A--CLAIMS**

1. A method comprising:

identifying an option limit order, said option limit order including information identifying a customer, information identifying a desired option, and information that indicates a limit price for said option limit order;

receiving a substantially real time feed of option market data; and

using the option market data in real time to identify at least one of a trade-through transaction relevant to said option limit order and a trade-at transaction relevant to said option limit order, said identifying said at least one of a trade-through transaction and a trade-at transaction occurring at a time prior to said option limit order being fully executed, deleted or canceled.

2. (Withdrawn) The method of claim 1, further comprising:

generating an alert on the basis of said identified at least one of a trade-through transaction and a trade-at transaction.

3. (Withdrawn) The method of claim 2, further comprising:

classifying the alert as one of active and inactive.

4. (Withdrawn) The method of claim 3, wherein the alert is classified as inactive because a corresponding trade-through transaction or trade-at transaction occurred within a predetermined period after an order time of the option limit order.

5. (Withdrawn) The method of claim 3, wherein the alert is classified as inactive because the option limit order is filled within a predetermined period after occurrence of a corresponding trade-through transaction or trade-at transaction.

6. (Withdrawn) The method of claim 3, wherein the alert is classified as inactive because a corresponding trade-through transaction or trade-at transaction occurred on a non-leading exchange.

7. The method of claim 1, further comprising:
  - using the identified at least one of a trade-through transaction and a trade-at transaction to tabulate at least one of trade-through data and trade-at data for a plurality of option limit orders placed by the customer;
  - tabulating fulfillment data for the plurality of option limit orders placed by the customer; and
  - comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data.
8. The method of claim 7, wherein the comparing includes dividing the tabulated fulfillment data by the tabulated at least one of trade-through data and trade-at data.
9. The method of claim 1, wherein the step of identifying the option limit order includes receiving the option limit order.
10. (Withdrawn) The method of claim 1, further comprising:
  - selecting an exchange for execution of the received option limit order.
11. (Withdrawn) The method of claim 10, further comprising:
  - forwarding said option limit order to the selected exchange to execute said option limit order, said forwarding based at least in part on one of said information identifying said customer and said desired option.
12. (Withdrawn) The method of claim 1, further comprising:
  - receiving exception data indicative of one or more market conditions at a time of occurrence of the identified at least one of a trade-through transaction and a trade-at transaction.
13. The method of claim 1, wherein said information identifying a desired option further includes: a type of said order, a security underlyer, an option expiration date, and a size of said order.

14. The method of claim 1, further comprising:  
disregarding the identified at least one of a trade-through transaction and a trade-at transaction in response to a market condition in effect at a time of the identified at least one of a trade-through transaction and a trade-at transaction.
15. (Withdrawn) A method comprising:  
identifying an option limit order, said option limit order including information identifying a customer, information identifying a desired option, and information that indicates a limit price for said option limit order;  
identifying at least one of a trade-through transaction and a trade-at transaction relevant to said option limit order; and  
generating an alert substantially in real time on the basis of the identified at least one of a trade-through transaction and a trade-at transaction.
16. (Withdrawn) The method of claim 15, further comprising:  
classifying the alert as one of active and inactive.
17. (Withdrawn) The method of claim 16, wherein the alert is classified as inactive because a corresponding trade-through transaction or trade-at transaction occurred within a predetermined period after an order time of the option limit order.
18. (Withdrawn) The method of claim 16, wherein the alert is classified as inactive because the option limit order is filled within a predetermined period after occurrence of a corresponding trade-through transaction or trade-at transaction.
19. (Withdrawn) The method of claim 16, wherein the alert is classified as inactive because a corresponding trade-through transaction or trade-at transaction occurred on a non-leading exchange.
20. A method comprising:

receiving a plurality of option limit orders, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order;

tabulating at least one of trade-through data and trade-at data for the plurality of option limit orders;

tabulating fulfillment data for the plurality of option limit orders; and

comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data.

21. The method of claim 20, wherein the comparing includes dividing the tabulated fulfillment data by the tabulated at least one of trade-through data and trade-at data.

22. The method of claim 20, wherein the tabulating at least one of trade-through data and trade-at data includes purging cancelled transactions.

23. The method of claim 20, wherein the at least one of trade-through data and trade-at data corresponds only to transactions occurring on a leading exchange.

24. The method of claim 20, wherein the tabulating at least one of trade-through and trade-at data includes carrying over open option limit orders from a previous trading day.

25. The method of claim 20, wherein the tabulating at least one of trade-through data and trade at data includes tabulating at least one of trade-through data and trade-at data that pertains to a single customer.

26. The method of claim 20, wherein the tabulating at least one of trade-through data and trade at data includes tabulating at least one of trade-through data and trade-at data that pertains to option limit orders routed to a single exchange.

27. The method of claim 20, wherein the tabulating at least one of trade-through data and trade-at data and the tabulating fulfillment data are performed with respect to each trading day.

28. (Withdrawn) A method comprising:

determining a set of option limit orders that are in effect during a trading day, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order;

receiving options trading information indicative of options trading activity on a plurality of exchanges during the trading day; and

after closing of the trading day, generating at least one of trade-through data and trade-at data for the determined set of option limit orders based on the received options trading information.

29. (Withdrawn) The method of claim 28, further comprising:

purgung cancelled transaction data from the received trading information before the generating of the at least one of trade-through data and trade-at data.

30. (Withdrawn) The method of claim 28, wherein the determining the set of option limit orders includes carrying over open limit orders from a previous trading day.

31. (Withdrawn) The method of claim 28, wherein all of the options trading information for the trading day is received after closing of the trading day.

32. (Withdrawn) An apparatus for generating quality data associated with an option limit order, comprising:

a processor; and

a storage device in communication with said processor and storing instructions adapted to be executed by said processor to

identify an option limit order, said option limit order including information identifying a customer, information identifying a desired option, and information that indicates a limit price for said option limit order;

receive a substantially real time feed of option market data; and

use the option market data in real time to identify at least one of a trade-through transaction relevant to said option limit order and a trade-at transaction relevant to said option limit order.

33. (Withdrawn) The apparatus of claim 32, wherein said storage device further stores instructions adapted to be executed by said processor to forward said option limit order to a selected one of a plurality of option exchanges to execute said option limit order, said forwarding based at least in part on one of said information identifying said customer and said desired option.

34. (Withdrawn) An apparatus for generating quality data associated with an option limit order, comprising:

a processor; and

a storage device in communication with said processor and storing instructions adapted to be executed by said processor to

identify an option limit order, said option limit order including information identifying a customer, information identifying a desired option, and information that indicates a limit price for said option limit order;

identify at least one of a trade-through transaction and a trade-at transaction relevant to said option limit order; and

generate an alert substantially in real time on the basis of the identified at least one of a trade-through transaction and a trade-at transaction.

35. An apparatus for generating quality data associated with a plurality of option limit orders, comprising:

a processor; and

a storage device in communication with said processor and storing instructions adapted to be executed by said processor to

receive a plurality of option limit orders, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order;

tabulate at least one of trade-through data and trade-at data for the plurality of option limit orders;

tabulate fulfillment data for the plurality of option limit orders; and

compare the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data.

36. (Withdrawn) An apparatus for generating quality data associated with a plurality of option limit orders, comprising:

a processor; and

a storage device in communication with said processor and storing instructions adapted to be executed by said processor to

determine a set of option limit orders that are in effect during a trading day, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order;

receive options trading information indicative of options trading activity on a plurality of exchanges during the trading day; and

generate, after closing of the trading day, at least one of trade-through data and trade-at data for the determined set of option limit orders based on the received options trading information.

37. (Withdrawn) A limit order protection system, comprising:

a communication device for receiving an option limit order, said option limit order including information identifying a customer, information identifying an option, and information that indicates a limit price for said option limit order;

means for receiving a substantially real time feed of option market data; and

means for using the option market data in real time to identify at least one of a trade-through transaction relevant to said option limit order and a trade-at transaction relevant to said option limit order.

38. (Withdrawn) A limit order protection system, comprising:

a communication device for receiving an option limit order, said option limit order including information identifying a customer, information identifying an option, and information that indicates a limit price for said option limit order;

means for identifying at least one of a trade-through transaction and a trade-at transaction relevant to said option limit order; and

means for generating an alert substantially in real time on the basis of the identified at least one of a trade-through transaction and a trade-at transaction.

39. A limit order protection system, comprising:

a communication device for receiving a plurality of option limit orders, each of said option limit orders including information identifying a respective option, and information that indicates a respective limit price for said option limit order;

means for tabulating at least one of trade-through data and trade-at data for the plurality of option limit orders;

means for tabulating fulfillment data for the plurality of option limit orders; and

means for comparing the tabulated fulfillment data to the tabulated at least one of trade-through data and trade-at data.

40. (Withdrawn) A limit order protection system, comprising:

means for determining a set of option limit orders that are in effect during a trading day, each of said option limit orders including information identifying a respective desired option, and information that indicates a respective limit price for said option limit order;

means for receiving options trading information indicative of options trading activity on a plurality of exchanges during the trading day; and

means for generating, after closing of the trading day, at least one of trade-through data and trade-at data for the determined set of option limit orders based on the received options trading information.

## APPENDIX B - EVIDENCE

No evidence is being submitted with this Appeal Brief (*i.e.*, this appendix is empty).

## APPENDIX C - RELATED PROCEEDINGS

No prior or pending appeals, interferences, or judicial proceedings are known to Applicants, Applicants' legal representative, or assignee, which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal. Therefore, there are no copies of decisions rendered by a court or the Board to attach (*i.e.*, this appendix is empty).